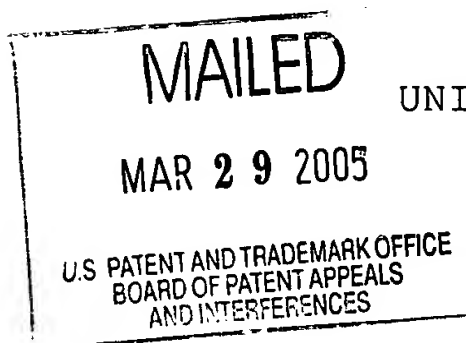


The opinion in support of the decision being entered today was not written for publication in a law journal and is not binding precedent of the Board.



UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte KONSTANTINOS I. PAPATHOMAS, STEPHEN J. FUERNISS,
JOAN CANGELOSI, DEBORAH L. DITTRICH and DAVID W. WANG

Appeal No. 2005-0843
Application No. 09/471,520

ON BRIEF

Before KIMLIN, WARREN and PAWLIKOWSKI, Administrative Patent Judges.

KIMLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 6-8 and 13-20. Claim 1 is illustrative:

1. A composition for reinforcing a bond, comprising:

a cyanate ester resin consisting essentially of a cationically polymerizable cyanate ester monomer, a cyanate ester prepolymer, or a mixture of the monomer and prepolymer;

a filler for controlling thermal expansion of said composition and for assisting in reinforcing said bond; and

a polymerization photoinitiator comprised of a catalytically effective amount of an organometallic complex salt having a metal

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cation, upon photolysis, said polymerization photoinitiator liberating at least one coordination site and polymerizing the cyanate ester substance, wherein said metal cation in the organometallic complex is selected from the group consisting of elements of Periodic Groups 1VB, VB, VIB, VIIB, and VIIB.

The examiner relies upon the following references as evidence of obviousness:

Gaku et al. (Gaku)	4,533,727	Aug. 6, 1985
Shimp	4,709,008	Nov. 24, 1987
McCormick et al. (McCormick)	5,215,860	Jun. 1, 1993
Swei	5,182,173	Jan. 26, 1993
Christie et al. (Christie)	5,250,848	Oct. 5, 1993

Appellants' claimed invention is directed to a composition comprising a cyanate ester resin, a filler, such as silica, and a polymerization photoinitiator comprising an organometallic complex salt. The purpose of the filler is for controlling thermal expansion of the composition. The composition finds utility for encapsulating elements of a printed circuit.

Appealed claims 1, 6-8, 16 and 17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Gaku in view of McCormick and Shimp. Claims 13-15 and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over the stated combination of references further in view of Christie or Swei.

In accordance with appellants' grouping of the appealed claims, the following groups of claims stand or fall together:

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(1) claims 1, 7, 8, 16 and 17; (2) claims 6 and 13; (3) claims 14 and 18; and (4) claims 19 and 20.

We have thoroughly reviewed each of appellants' arguments for patentability. However, we are in complete agreement with the examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the examiner's rejections for essentially those reasons expressed in the Answer, and we add the following primarily for emphasis.

Appellants do not dispute that Gaku, like appellants, discloses a composition comprising a cyanate ester resin, a silica filler, and a polymerization photoinitiator. However, a principal argument advanced by appellants is that Gaku does not teach an amount of silica filler for controlling thermal expansion of the composition (claim 1) or adding an effective amount of a silica filler for controlling thermal expansion (claim 7). According to appellants, the present specification, at page 24, lines 29-32 discloses that "[t]he compositions of the present invention contain . . . about 40% to about 75% by weight and preferably about 50% to about 60% by weight of the filler." Appellants contend that Gaku teaches away from using such an

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effective amount of filler for controlling thermal expansion by disclosing that the fillers "do not impair the nature of the curable resin (A) or the cured product" (column 8, lines 23-26).

We, like the examiner, are not persuaded by appellants' argument. As pointed out by the examiner, the appealed claims do not recite the amount of filler disclosed in the specification, and it is axiomatic that limitations in the specification are not to be read into the claims. Also, we find that the inclusion of the silica filler in the composition of Gaku would necessarily control the thermal expansion of the composition to some unspecified degree. As acknowledged by appellants at page 3 of the Reply Brief, "it is fundamental physics (and thus known in the art) that the thermal expansion of the composition depends on the coefficient of thermal expansion of all materials in the composition and on the relative amounts (e.g., weight percent, molar concentration, etc.) of each material in the composition" (last paragraph). Manifestly, the addition of silica into the Gaku composition necessarily changes/controls/effects the thermal expansion of the composition to which it is added. Inasmuch as the appealed claims do not define the degree of control or effect that the filler has on the composition, it can be seen that

appellants' argument is not commensurate in scope with the degree of protection sought by the appealed claims.

As for appellants' argument that Gaku does not teach a filler for assisting in reinforcing a bond, we agree with the examiner that Gaku's impregnation with glass cloth as well as other silica fillers would assist in reinforcing the bond.

Appellants also contend that the collective teachings of Gaku and McCormick do "not teach or suggest the feature 'wherein said metal cation in the organometallic complex is selected from the group consisting of elements of Periodic Groups IVB, VB, VIB, VIIB, and VIIIB'" (page 19 of principal brief, first paragraph). However, the examiner accurately points out that McCormick, at column 4, lines 3-8, teaches organometallic complex salts wherein the metal is selected from all the claimed groups other than Group VB.

Concerning the claim 6 requirement that the cyanate ester substance be solvent free, we agree with the examiner that Gaku exemplifies such solvent free cyanate esters. Although appellants challenge the examiner's position, they fail to point to any particular solvent in the examples of Gaku.

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Regarding appellants' separate argument for claim 13, we adopt the examiner's reasoning set forth in the paragraph bridging pages 8 and 9 of the Answer. Likewise, for the remaining separately argued claims, we concur with the examiner's reasoning set forth in the Answer.

Appellants' Reply Brief makes reference to several arguments of the examiner that were not present in the Final Rejection and consequently conclude that the new arguments result in a new ground of rejection that cannot be used in the present appeal. However, appellants' proper recourse to address an alleged new ground of rejection is a petition to the Director. Such a matter is outside the scope of our review. Furthermore, it has been often held that an expanded reading of the applied prior art is not tantamount to a new ground of rejection.

As a final point, we note that appellants base no argument upon objective evidence of nonobviousness, such as unexpected results, which would serve to rebut the prima facie case of obviousness established by the examiner.

In conclusion, based on the foregoing and the reasons well-stated by the examiner, the examiner's decision rejecting the appealed claims is affirmed.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv) (effective Sep. 13, 2004; 69 Fed. Reg. 49960 (Aug. 12, 2004); 1286 Off. Gaz. Pat. Office 21 (Sep. 7, 2004)).

AFFIRMED


EDWARD C. KIMLIN)
Administrative Patent Judge)


CHARLES F. WARREN)
Administrative Patent Judge)

BOARD OF PATENT
APPEALS AND
INTERFERENCES


BEVERLY PAWLIKOWSKI)
Administrative Patent Judge)

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